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METHOD AND APPARATUS FOR ABERROSCOPE CALIBRATION AND DISCRETE COMPENSATION

ABSTRACT OF THE DISCLOSURE

A calibration device for an aberroscope includes an optical element that is insertable into an optical path of a wavefront analyzer. The optical element is adapted to induce a predetermined aberration in a wavefront. The optical element, which may be transmissive or reflective, may comprise a lens optimized for a specific power and aberration; a computer-generated hologram; or a spatial light modulator. A substantially unaberrated wavefront is passed along an optical path leading to a wavefront analyzer. A predetermined aberration is induced in the unaberrated wavefront to form an aberrated wavefront using an optical element positioned in the optical path. The aberrated wavefront is then analyzed using the wavefront analyzer, which is calibrated using data generated by the wavefront analyzer from the aberrated wavefront.